
About this document

This document describes Meridian 1 AC-powered systems, DC-powered systems, and reserve power options for both. It also gives operating power requirements, including guidelines for calculating system power consumption, and provides guidelines for determining wire size for power connections.

See *Meridian 1 installation planning* (553-3001-120) for information on system grounding, the commercial power source, auxiliary power, and the power fail transfer unit (PFTU). See *Meridian 1 general maintenance information* (553-3001-500) for information on system monitor capabilities.

Notation conventions

In North America, there are a number of branch circuit wiring methods recognized by the U.S. National Electrical Code (NEC) and the Canadian Electrical Code (CEC). Among them are:

- 208/120 V, three-phase, four-wire, “wye” service
- 240/120 V, three-phase, four-wire, “delta” service
- 240/120 V, single-phase, three-wire service

Sometimes nomenclature is confusing. For example, the third method (240/120 V, single-phase, three-wire, service) is often referred to as 220/110, 230/115, 240/120, or 250/125 V. This is because, as a result of voltage drops, the nominal voltage varies from region to region, utility to utility, and even within the same distribution network. In addition, the ratings of the plugs and receptacles used are 250 and 125 V, although the nominal voltages are usually lower than this.

As a convention throughout Meridian 1 documentation, the term 208/240 V is used as the nominal input voltage, and 120 V is used to refer to the nominal voltage of any associated auxiliary power circuits.

References

For information on the J2412 DC power plant (QCA13), see the following documents:

- *Power Distribution Plant J2412A* (167-2191-200)
- *Meridian 1 applications - System 600/48* (167-9021-111)
- *NT5C03 Switched Mode Rectifier —48V/50A: Description, Maintenance and Ordering Information* (169-2031-200)

For information on the NT6D82 Power System, see the following documents:

- *NT6D82 Power System description, installation, and maintenance* (553-3001-110)
- *Reference manual for NT6D82 Power System* (P0714863)
- *Reference manual for 100A Rectifier* (P0714864)

For information on the MFA150 Modular Front Access Power System, see the following documents:

- *MFA150 Modular Front Access Power System: Description, installation, operation and maintenance manual* (167-9021-104)
- *MFA150 Modular Front Access Power System user guide* (P0730121)

For information on the MPP600 Modular Power Plant, see the following documents:

- *MPP600 Modular Power Plant: Description, installation, operation and maintenance manual* (167-9021-105) (P0741670)
- *50-amp Rectifier Expansion Assembly Installation* (P0743512)

For information on Meridian 1 Option 11 Power Engineering, refer to *System option 11 technical reference guide* (553-3011-100).

See the Meridian 1 System planning and engineering guide for

- *Library navigator* (553-3001-000)
- *Meridian 1 system overview* (553-3001-100)
- *Meridian 1 installation planning* (553-3001-120)
- *Meridian 1 equipment identification* (553-3001-154)

See the Meridian 1 System installation and maintenance guide for

- *Meridian 1 system installation procedures* (553-3001-210)
- *Meridian 1 general maintenance information* (553-3001-500)

See the Meridian 1 System and software upgrade guide for

- *Upgrade system installation to X11 release 23* (553-3001-258)

